

# Applied Signal Processing (STAPSE5)

General topics one is expected to be familiar with:

- non-causal and causal sequences
- unit step function
- exponential sequence
- sampling: Nyquist rate and aliasing
- stability
- power and energy
- finite and infinite impulse response and corresponding filter functions
- (circular) convolution
- (discrete) Fourier transform, FT properties and rules
- z-Transform: interpretation of region of convergence, poles and zeros
- Different filter types: lowpass, highpass, bandpass, bandstop, allpass
- zero/linear phase filters
- filter structures and their relation to filter functions